RAW SEQUENCE LISTING
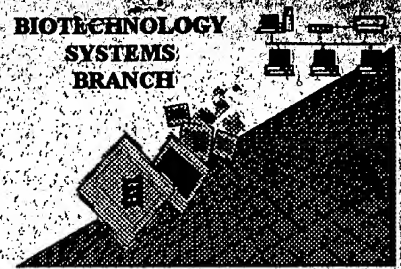# ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number: _08/852,495_

Art Unit / Team No. : _O/PE_

Date Processed by STIC: _2/10/98_

THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.

PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,

2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY

THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:

ARTI SHAH 703-308-4212

OIPE

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION *US/08/852,495*

DATE: 02/10/98
TIME: 14:13:05

INPUT SET: S23368.raw

#4 ⫽R
03/10/98
(N.C.)

> This Raw Listing contains the General
> Information Section and those Sequences
> containing ERRORS.

```
 1                           SEQUENCE LISTING
 2
 3     (1)    General Information:
 4
 5          (i) APPLICANT: Ruddy, David A.
 6                         Wolff, Roger K.
 7
 8         (ii) TITLE OF INVENTION: POLYMORPHISMS IN THE REGION OF THE HUMAN
 9               HEMOCHROMATOSIS GENE
10
11        (iii) NUMBER OF SEQUENCES: 24
12
13         (iv) CORRESPONDENCE ADDRESS:
14              (A) ADDRESSEE: TOWNSEND and TOWNSEND and CREW LLP
15              (B) STREET: Two Embarcadero Center, 8th Floor
16              (C) CITY: San Francisco
17              (D) STATE: CA
18              (E) COUNTRY: USA
19              (F) ZIP: 94111
20
21          (v) COMPUTER READABLE FORM:
22              (A) MEDIUM TYPE: Floppy disk
23              (B) COMPUTER: IBM PC compatible
24              (C) OPERATING SYSTEM: PC-DOS/MS-DOS
25              (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
26
27         (vi) CURRENT APPLICATION DATA:
28              (A) APPLICATION NUMBER:  US 08/852,495
29              (B) FILING DATE: 07-MAY-1997
30              (C) CLASSIFICATION: 435
31
32        (vii) PRIOR APPLICATION DATA:
33              (A) APPLICATION NUMBER:  US 08/724,394
34              (B) FILING DATE: 01-OCT-1996
35              (C) CLASSIFICATION:
36
37        (vii) PRIOR APPLICATION DATA:
38              (A) APPLICATION NUMBER:  US 08/652,265
39              (B) FILING DATE: 23-MAY-1996
40              (C) CLASSIFICATION:
41
42        (vii) PRIOR APPLICATION DATA:
43              (A) APPLICATION NUMBER:  US 08/630,912
44              (B) FILING DATE: 04-APR-1996
45              (C) CLASSIFICATION:
```

Does Not Comply
Corrected Diskette Needed

RECEIVED

FEB 2 6 1998

do not use the headery under
(vii) PRIOR APP. DATA:

46
47

ERRORED SEQUENCES FOLLOW:

```
48   (2) INFORMATION FOR SEQ ID NO:1:
49
50        (i) SEQUENCE CHARACTERISTICS:
51            (A) LENGTH: 235033 base pairs
52            (B) TYPE: nucleic acid
53            (C) STRANDEDNESS: single
54            (D) TOPOLOGY: linear
55
56
57
58
59
60        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
61
62   CACACACACA CACACACACA CACACACACA CACACAAATG AGGTATATAA AGGGTCTCCT      60
63
64   AAAATGTCAT CTGATATTTG TTATTTCATA TTCTCAGATT TTTAATCCAT TTAGGTAGGT     120
65
66   CTATTTTAGA TAGCCTTGTC TGAAACAGAG CTGGGACCTG ATGAGTGAAA ATGAGCTCAC    (180)
67
68   CAGAAGAAAA ATCAAACAGG CATTTCAGAG ATTGAGGCCA AGAAGTTAAA TGTCTTAAAT    OK 240
69
70   GGGCAGAGCT TAGCTGCTTG ATGTGAAAAG AGACCAGCGT GGCTGGAACA GCAAAGGAGA     300
71
72   ACAGCAGAAG AGGTGAACAG AGGCCAGAGA TGGTCACTGA GTGGGCCCTT AAGTCATGGT     360
73
74   AAGGAGTATG GAGAATGAAT TATTGCATGT ATTGAATATG TAGGTGACGT GACTCACAGA     420
75
76   TACTTTGGAT TTGTAGAGAT GAAGGAAATG TAGCAAGTGA CACTCTTAGA ATGTTGATTT     480
77
78   GAGTAAATGG TAGTGTCAGT TATTGAACTG GGGAGAACTG GAAGGGATAA CAGGCTTAAG     540
79
80   GAGCACGTTT ATTCCTGTGT CTTGGAAGTG TTTAGGGTGA AAGACCTATT AGAGTTCTAA     600
81
82   ATGGAGATGT CAAGTGAAAA TGTGGCTACA CACATTTGCA TTTCAGAAAA AAGGTCAGGC    (660)
83
84   TGGAGATGTA AAATTGGAAG TTTACTGCAT ATAGATAGTC TTTGGAACCG TAGTATTGAT    OK 720
85
86   GAAGCCATTA ATGAGACAGA ACAAAGACTA GGGACCAGAG CCAAGCTCCA AGTTTCTAAA     780
87
88   ATTTAGAGGA TAGTATAGTC TGGTCATTTT GAGGTGAATA CTTAATAACA GAACAATTTG     840
89
90   TTGAAGTGTA AATTTAGAGC CCTACACTTT TAGCTCTGAC TATTAACGAA TACAGGAAAG     900
91
92   AATGGATATG GTTATCTGCC TGGTGTCTGT GAAATAATTT AAGCCAGGAA GAGATCCTCA     960
```

[Handwritten annotations in right margin:] use hundred Ø, not letter "O"

[Handwritten annotation at bottom:] This error appears throughout Sequence 1.
Due to size, only this page shown as a sample.

INPUT SET: S23368.raw

```
7884    TTATCAAAGG TAAACAGTTA TTAATCCTAT ACCAAGATGT CAAGGAGAAG TACTTTTGGA    234720
7885
7886    ACACAAGGAA TTCTCTGGGA GTCCTTACTA CTCTCAAGCC CAGTGAAAAA GTTAATGAAA    234780
7887
7888    AACTATAGTA CCTTCCTATA AGCTGGATGA CTAATTACCA GGCTCATTTA GGAATTTGCC    234840
7889
-->  7890    TTACCAAGTA AAACATAAGG GCAGCTGAGG TGCTGACTGA AGACAAATGG AGCATAGAAT    234900
7891
-->  7892    AAGAGTAGTA AAGAATGCCA AAAATGCTGT CATGTATCCA TTGACAAAAG GAGCTATAAA    234960
7893
7894    GCCTTTAGGT ATTTTCACAC TTGCTCTGTT ACGTAAATGT ATGTGTGTGT GTGTGTGTGT    235020
7895
7896    GTGTGTGTGT GTG                                                       235033
7897
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7898    (2) INFORMATION FOR SEQ ID NO:2:
7899
7900         (i) SEQUENCE CHARACTERISTICS:
7901             (A) LENGTH: 237326 base pairs
7902             (B) TYPE: nucleic acid
7903             (C) STRANDEDNESS: single
7904             (D) TOPOLOGY: linear
7905
7906
7907
7908
7909
7910         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
7911
7912    CACACACACA CACACACACA CACACACACA CACAAATGAG GTATATAAAG GGTCTCCTAA      60
7913
7914    AATGTCATCT GATATTTGTT ATTTCATATT CTCAGATTTT TAATCCATTT AGGTAGGTCT     120
7915
7916    ATTTTAGATA GCCTTGTCTG AAACAGAGCT GGGACCTGAT GAGTGAAAAT GAGCTCACCA     180
7917
7918    GAAGAAAAAT CAAACAGGCA TTTCAGAGAT TGAGGCCAAG AAGTTAAATG TCTTAAATGG     240
7919
7920    GCAGAGCTTA GCTGCTTGAT GTGAAAAGAG ACCAGCGTGG CTGGAACAGC AAAGGAGAAC     300
7921
7922    AGCAGAAGAG GTGAACAGAG GCCAGAGATG GTCACTGAGT GGGCCCTTAA GTCATGGTAA     360
7923
7924    GGAGTATGGA GAATGAATTA TTGCATGTAT TGAATATGTA GGTGACGTGA CTCACAGATA     420
7925
7926    CTTTGGATTT GTAGAGATGA AGGAAATGTA GCAAGTGACA CTCTTAGAAT GTTGATTTGA     480
7927
7928    GTAAATGGTA GTGTCAGTTA TTGAACTGGG GAGAACTGGA AGGGATAACA GGCTTAAGGA     540
7929
7930    GCACGTTTAT TCCTGTGTCT TGGAAGTGTT TAGGGTGAAA GACCTATTAG AGTTCTAAAT     600
7931
7932    GGAGATGTCA AGTGAAAATG TGGCTACACA CATTTGCATT TCAGAAAAAA GGTCAGGCTG     660
7933
7934    GAGATGTAAA ATTGGAAGTT TACTGCATAT AGATAGTCTT TGGAACCGTA GTATTGATGA     720
7935
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[handwritten annotation: error appears on next page — some intervening pages not included]

INPUT SET: S23368.raw

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12707
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12709
12710   ATCCCCAGGG TGAGCAAGGG TGTGGAGGAA ACTACTCTCA TATATTGTGA ATGTAAGAGG   144000
12711
12712   CATTTTATGA TATAACTGAA TTCAGTTTTA TGTATAACTG AATTACGGAT ATGAGAATCT   144060
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12714   CAAATGAGGA CGAATGGTTT TTACGCACAA AACATGAGAC ACAAATCTGT AAGAAATATA   144120
12715
12716   AAGTCGTGAC CACGTCCTTT CAGAACTTTA ACCTGTTTGC TGAAGTACGT CAGTAACAAT   144180
12717
12718   GGCAGGGAAA GGGTATCTTA AATTTCACCA CAGCCTCAAA GAGGCCATTT CGTGGATCCG   144240
12719
12720   CTGAGGCTTG GAGTCGGCCT TCTGACCACG AGTCCTGCGG CTATGAAAGA GGAAGCCGCG   144300
12721
12722   GTTCAGGGCG TCCTCGCGAG TCGCGCAGCC CGCCCTGCTC CAGCTGGGGA CACAGGTGGT   144360
12723
12724   CACGGCGCTT TCCAGCTGCA GATCCAGGCG GCAGCCCAAG ATTTGGTCCA GCCGCCAAGG   144420
12725
12726   GGTGGCTCGA GTGACTGACG GGCCTTGAAC GCTCCCAGGA CCCACATCTG GAGAGGGAGG   144480
12727
12728   TGGGGGTGGG GTGCTGAAGT CATTCTTGGG GCCCCTGGGG GCGGGCATGG ACCTGGGTAA   144540
12729
12730   GGCCAGAGAA ATTGACACCT CGTGACATCC CTGGAAGAGA AGTACGTTCA GTGTCACTCC   144600
12731
12732   AGAGCTGAAA GATACCGCCT TCTGGCTGGT CCCTCCTCAC CTACATACTT TTCTAATTTG   144660
12733
12734   TCTGGAGCAG GCCGGGCATC TGTATTATCT GGTTATTTAA ATATCTGGTT ATTTAAAAGC   144720
12735
12736   TCTCCATTAA ATTCACATAC ACGAAAATAA AAATTAAAAA AAATTTTAAA AAAAAGAAAC   144780
12737
12738   AAAAGCTCTC TAATGACCAA GTCCTACACG ATAGTGAATA AATTTTTTTG TGTGGTCCCT   144840
12739
12740   AAAATTGAGT TCATGCCTTT TCTGAAGTAA TAGACGCCCA GAGAAGGGAT CGACTTACCC   144900
12741
12742   ATCATGCCAC AGAGATTAAT TGGCCCCAGA ATTCTTTAGC AGACCGTGTA TATGAACGTC   144960
12743
12744   CTTTGCAATC ATATAAATTA ACTGGGAAAA CCTCATTTAG TATGTTACAT GCCTAGCGTT   145120
12745
12746   TTGTGCCTGA ACACCTTACA AGAACCAGGG ACTATTGCCC CAATATTATA TTTCAGGAAA   145180
12747
12748   GGAAGGCCCA GACAAATGGT GTCACTGGTC CACTTTCACC CAGTTGGTAA ATGAAACCAG   145240
12749
12750   AAATTATAGC TGTACCACAG AAAGGTGAAA ACGTTTCTTT TATAATTTCA CATACAATCT   145300
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12752   TTAATGGACC CAGTGTCCAA CACATTAAAG CAAGTGCTCA GGAGTGACAT CAAGATGTAA   145360
12753
12754   AAAATAGTCC TGTCCTCAGG GAGTTTAGGT CTTGGAGAAA AGAGACCCAA GGAGACACAA   145420
12755
12756   GACAAAGGGG AAAGAGAAGG AGCGCTGAAG ACTGAGGACC CTGCCTGTGG ACTGAAGTGA   145480
12757
12758   GGATGGGGAC ACCCGATGCC CGGAATATGA CAGTTTGGAG GGGCCTGAAG GACTCTTCTA   145540
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Notice of Availability of
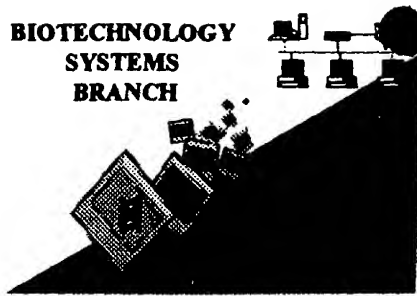# Checker Program

Applicant Aid for Biotechnology Computer Readable Form (CRF)
Sequence Listing Submissions

The Patent and Trademark Office (PTO) has developed a computer program, called Checker, that will aid applicants in identifying and correcting errors prior to making submissions for compliance with the Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures (Sequence Rules: 37CRF 1.821 through 1.825).
Final rules were published in the *Federal Register* (55 FR18230) on May 1, 1990, and in the PTO *Official Gazette* (1114 Off.Gaz.PatOffice 29) on May 15, 1990.

Checker is a DOS-based software program that is intended to assist users in determining whether errors may be present in the sequence listings, and is not intended to guarantee that the submission is error-free.

The most current version of the software is available via computer downloading, details are below. Copies on diskette are also available. Updated software versions will not be automatically mailed out; any updates will be announced in the PTO *Official Gazette*.

The software can be accessed/requested from the following locations:

1) Dial-up access through the Internet. Location is ftp://ftp.uspto.gov
    The software is in current directory: pub/checker/
    Download all the files. Cost: Free-of-charge

3) For diskette copies, mail to: U.S.P.T.O., OEIP, CRYSTAL PARK 3, SUITE 441
                                     WASHINGTON DC 20231

    COST FOR DISKETTE IS $ 25.00
    METHOD OF PAYMENT:
        Check payable to Commissioner of Patents and Trademarks
        VISA/ Mastercard/ Charge- Charges can be faxed to 703-306-2737
        PTO Deposit Account

For Further Information, Contact: **Arti Shah at 703-308-4212**

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821 - 1.825 for the following reason(s):

☒ 1. This application clearly fails to comply with the requirements of 37 CFR 1.821 - 1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.

☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 CFR 1.821(c).

☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).

☒ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing."

☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).

☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e).

☐ 7.

Other: ——

Applicant must provide:

☒ An ~~initial or~~ substitute computer readable form (CRF) copy of the "Sequence Listing"

☒ ~~An initial or~~ substitute _corrected pages of the_ paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification

☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d)

For questions regarding compliance with these requirements, please contact:

For Rules Interpretation, call (703) 308-1123
For CRF submission help, call (703) 308-4212
For PatentIn software help, call (703) 557-0400

Please return a copy of this notice with your response.